

# THE NINDS SURGICAL NEUROLOGY BRANCH

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The National Institute of Neurological Disorders and Stroke (NINDS) is striving to reduce the burden of neurological disease, a burden borne by every age group, by every segment of society, by people all over the world. To this end, the Institute supports and conducts research on the healthy and diseased brain, spinal cord, and peripheral nerves in an effort to advance the understanding of the brain and the nervous system.<sup>1</sup> To facilitate these goals the Surgical Neurology Branch, as part of the NINDS, is dedicated to providing unique research opportunities in an environment dedicated to advances in biological sciences and their translation to clinical medicine.

Our neurosurgeons and Ph.D. scientists are conducting clinical research on tumors of the central nervous system (*gliomas, hemangioblastomas associated with von Hippel-Lindau disease, pituitary tumors*), epilepsy, Parkinson's disease, the role of tumor suppressor genes, the genetic basis of oncogenesis, the role of VEGF in cerebral edema and tumor physiology, and new drug delivery techniques. Our basic research efforts are focused on apoptosis and translational research into the design of protein toxins for cancer therapy. We are currently conducting promising research on improved immunotoxin designs, improved delivery, and the minimization of nonspecific toxicity. In addition, the use of human cytotoxic proteins for cancer therapy, including apoptosis promoting proteins, is being explored.

Our clinical specialists are provided with state-of-the-art technical resources to ensure optimal care for our patients. We utilize modern imaging technologies to ensure that we are equipped with essential data that is necessary for the procedural execution of proposed treatments. Our operating rooms are equipped with computerized electrophysiology, cortical stimulation, and frameless stereotaxy to allow our staff to perform innovative procedures and techniques.

Furthermore, we ensure that all of our patients are treated with the optimal level of care and compassion by our neurosurgeons and staff. The National Institutes of Health fosters an environment of teamwork with a wide variety of specialists, nurses, coordinators, social workers, and support staff to ensure that the diagnostic and treatment needs of our patients are fulfilled. While our patients are exposed to a unique environment that combines clinical research, basic research, and clinical care, they are also provided access to cutting edge biomedical research technologies.

If you are a neurosurgical resident interested in translational research related to the areas mentioned above, please contact us at:

*NINDS Surgical Neurology Branch  
ATTN: Michelle Ahalt  
Building 10, Room 5D37  
10 Center Drive  
Bethesda, Maryland 20892-1414  
Phone: 301-496-5728  
Fax: 301-402-0380  
Email: [ahaltm@ninds.nih.gov](mailto:ahaltm@ninds.nih.gov)*

You can also find additional information about our branch and our training program at the following websites:

[http://intra.ninds.nih.gov/Lab.asp?Org\\_ID=95](http://intra.ninds.nih.gov/Lab.asp?Org_ID=95)  
<http://www.training.nih.gov/clinical/Physician/ASP/listing1.asp?id1=TP-&id2=51>

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<sup>1</sup> Adapted from The New Millennium Priorities and Plans for the NINDS